

Patent Claims

1. Electromotive drive comprising an electric motor with a commutator (2) which is located in a motor housing, and also gearing which is flange-mounted on the electric motor, wherein a shaft (1) which is driven by the electric motor passes through an opening (9) into an interior of a gearing housing (8), characterized in that a screening element (15, 15a) is fixed onto the shaft (1) to rotate with said shaft, and in that the screening element (15, 15a) completely or almost completely closes the opening (9) by means of a first section (17, 19) which is circular or cylindrical at the circumference.
2. Drive according to Claim 1, characterized in that at least one control magnet (13) is provided on the shaft (1) within the gearing housing (8), which control magnet rotates with the shaft (1) and cooperates with at least one sensor (12) which is preferably arranged within the gearing housing (8).
3. Drive according to Claim 1 or 2, characterized in that the first section (17, 19) extends into the opening (9).
4. Drive according to any of the preceding claims, characterized in that the first section (17, 19) closes the opening (9) up to an annular gap having a width which is much smaller than the diameter of the opening (9).
5. Drive according to any of the preceding claims, characterized in that the shaft is the armature shaft (1) of the electric motor.
6. Drive according to any of the preceding claims, characterized in that the shaft (1) is mounted in the gearing housing (8), and in that the corresponding bearing (10) is offset axially relative to the opening (9) which is screened off from the motor interior by means of the screening element (15, 15a).

7. Drive according to any of the preceding claims, characterized in that the screening element (15, 15a) is at the same time a carrier or hub for the at least one control magnet (13).
8. Drive according to Claim 7, characterized in that the at least one control magnet (13) is provided on the screening element (15, 15a) in a manner offset axially with respect to the first section (17, 19).
9. Drive according to any of the preceding claims, characterized in that the at least one sensor (12) which cooperates with the control magnet (13) is provided on a board (11) which is accommodated in the gearing housing (8).
10. Drive according to any of the preceding claims, characterized in that the screening element (15, 15a) is a moulded part made of plastic.
11. Drive according to any of the preceding claims, characterized in that the screening element, in addition to the first section (17, 19), has at least one second section (14, 18) which is offset axially with respect to the first section, wherein the at least one control magnet (13) is arranged on said second section and/or said second section forms the at least one control magnet.
12. Drive according to any of the preceding claims, characterized in that the first and second section (18, 19) of the screening element (15a) directly adjoin one another.
13. Drive according to any of the preceding claims, characterized in that a sleeve-shaped section (16) which surrounds the shaft (1) is provided between the first section (17) and the second section (14).

14. Drive according to any of the preceding claims, characterized in that the screening element or the first section of this element forms part of the commutator (2).
15. Drive according to any of the preceding claims, characterized in that the control magnet (13) forms the screening element.
16. Drive according to Claim 15, characterized in that the control magnet (13) extends into the through-opening with at least part of its axial width.